

IN THE CLAIMS

Please amend the claims as follows:

1. (original) A molecular stamp for printing biomolecules onto a substrate comprising a hydrophylic polymeric gel and a patterned surface, characterized in that the gel has at least 20 % crosslink density.

2. (original) The molecular stamp of claim 1 wherein the gel is obtainable by polymerizing at least one of a water soluble ethylenically unsaturated and/or epoxidated monomer containing at least one functional group selected from a hydroxy, alkoxy, amine, alkyl substituted amine, carboxylate, carboxylic ester, carboxylic anhydride, carboxamide, carbamate, urethane, and urea group, in the presence of a polymerization initiator and optionally a chain transfer agent, and crosslinking the polymer with a crosslinker having at least two ethylenically unsaturated groups and/or epoxy groups.

3. (currently amended) The molecular stamp of claim 1-~~or~~ 2 wherein the monomer is a hydroxyalkyl(meth)acrylate and the crosslinker is a polyethyleneglycol di(meth)acrylate.

4. (currently amended) The molecular stamp of ~~any one of claims 1 to 3~~claim 1 wherein the stamp is self-supporting.

5. (currently amended) The molecular stamp of ~~any one of claims 1 to 4~~claim 1 wherein the crosslink density is at least 40 %.

6. (currently amended) The molecular stamp of ~~any one of claims 1 to 4~~claim 1 wherein the polymer concentration is at least 50 %.

7. (currently amended) A method for preparing the stamp of ~~any one of claims 1-6 comprising~~claim 1:

- polymerizing at least one of a water soluble ethylenically unsaturated and/or epoxidated monomer containing at least one functional group selected from a hydroxy, alkoxy, amine, alkyl substituted amine, carboxylate, carboxylic ester, carboxamide, anhydride, urethane, and urea group, in the presence of a polymerization initiator and optionally a chain transfer agent, and
- crosslinking the polymer with a crosslinker having at least two ethylenically unsaturated groups and/or epoxy groups to a crosslinked polymer with a crosslink density of at least 20 %.

8. (original) A method of printing biomolecules onto a substrate, preferably a gold substrate, comprising the steps:

- optionally swelling the stamp of any one of claims 1-6 with water or buffer
- loading a biomolecule onto the surface of the stamp by contacting the patterned surface of the stamp with the biomolecule,
- optionally rinsing the surface with water or a buffer and/or drying the stamp, and
- bringing the surface of the stamp with the adsorbed biomolecule into contact with a substrate followed by transferring the biomolecule from the stamp to the substrate.